
TITLE 326 AIR POLLUTION CONTROL BOARD

SECOND NOTICE OF COMMENT PERIOD

LSA Document #07-352

DEVELOPMENT OF AMENDMENTS TO RULES CONCERNING VOLATILE ORGANIC COMPOUNDS IN ORGANIC SOLVENT DEGREASERS**PURPOSE OF NOTICE**

The Indiana Department of Environmental Management (IDEM) has developed draft rule language for amendments to [326 IAC 8-3](#) concerning organic solvent degreasing operations in Indiana. By this notice, IDEM is soliciting public comment on the draft rule language. IDEM seeks public comment on the draft rule, including suggestions for specific language to be included in the rule, and comments on the affected citations listed or any other provisions of Title 326 that may be affected by this rulemaking.

HISTORY

First Notice of Comment Period: June 27, 2007, Indiana Register (DIN: [20070627-IR-326070352FNA](#)).

Continuation of First Notice of Comment Period: April 2, 2008, Indiana Register (DIN: [20080402-IR-326070352FCA](#)).

CITATIONS AFFECTED: [326 IAC 8-3](#).

AUTHORITY: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#); [IC 13-17-3-12](#).

SUBJECT MATTER AND BASIC PURPOSE OF RULEMAKING**Basic Purpose and Background**

In the April 30, 2004, Federal Register (69 FR 23858), the United States Environmental Protection Agency (U.S. EPA) designated 23 counties as nonattainment for the 8-hour ozone standard of 0.085 parts per million (ppm). While the majority of Indiana has attained the current (1997) 8-hour ozone standard, it is prudent for Indiana to consider implementing additional cost-effective measures to reduce emissions that contribute to the formation of ozone. The reasons for considering additional reductions include the narrow margin between Indiana's current air quality and the new lower 8-hour ozone standard of 0.075 ppm that U.S. EPA issued on March 12, 2008, the possibility that the new ozone standard may be lowered even further, and the concerns expressed by other states that emissions from Indiana are contributing to their inability to attain the standard (the Clean Air Act provides a legal mechanism for those states to require Indiana to reduce Indiana's potential contribution to nonattainment in other states).

Because volatile organic compounds (VOCs) contribute to the formation of ozone, it is important to control VOCs in order to comply with the 8-hour ozone standard. In an effort to assist neighboring states in the development of state implementation plans (SIPs) to comply with the federal requirements, the Lake Michigan Air Directors Consortium (LADCO) has been working with its member states to identify and recommend regional controls that would help states bring areas back into attainment for the new 8-hour ozone standard. The LADCO states include Illinois, Indiana, Michigan, Ohio, and Wisconsin. The LADCO states have discussed applying certain VOC control measures currently applicable in a limited number of counties to all counties in the region in order to provide a general benefit to all ozone nonattainment areas. LADCO has evaluated potential reductions from various regulatory options that could be adopted on a multistate basis in the region. Based on discussions with other LADCO states and information provided by LADCO, IDEM proposes to amend [326 IAC 8-3](#) (Organic Solvent Degreasing Operations) by extending the solvent requirements in [326 IAC 8-3-8](#) to all counties in the state.

Solvent cleaning operations are an integral part of many industries and involve the use of solvents or solvent vapor to remove water-insoluble contaminants such as grease, oils, waxes, carbon deposits, fluxes, and tars from metal, plastic, glass, and other surfaces. Solvent cleaning is usually performed prior to painting, plating, inspection, repair, assembly, heat treating, and machining. Solvent cleaning is used in the fabrication of metal products, industrial and commercial machinery, computer equipment, electronic equipment, transportation equipment, furniture and fixtures, and various other products. With cold cleaning, one of four types of degreasing operations, the part is dipped into or sprayed with a solvent. Sources that commonly have cold cleaning degreasers include auto body shops, auto repair shops, and industrial sources.

Emissions of VOCs occur as a result of evaporation from storage and handling of fresh and spent solvents: (1) evaporation as the solvent is splashed or sprayed; (2) evaporation from surfaces following solvent cleaning; (3) evaporation from solvent-soaked rags or cleaning tools; and (4) emissions from flushing or spray systems. All solvent that is not recycled or sent to waste disposal is eventually emitted into the atmosphere.

In this rulemaking, Indiana is proposing to do the following:

- (1) Extend the material requirements for cold cleaning degreasers at [326 IAC 8-3-8](#) to all cold cleaning degreasers located in any county in the state.
- (2) Eliminate grandfathering of organic solvent degreasing operations in Indiana at [326 IAC 8-3-1](#).
- (3) Amend the applicability of the rule at [326 IAC 8-3-1](#), repeal sections [326 IAC 8-3-2](#), [326 IAC 8-3-3](#), and [326 IAC 8-3-4](#) to consolidate rule requirements into sections [326 IAC 8-3-5](#), [326 IAC 8-3-6](#), and [326 IAC 8-3-7](#) in order to streamline the structure of this rule, eliminate duplicative language, and clarify the rule. These amendments do not broaden the scope of the existing rule language.
- (4) Exempt organic solvent degreasing operations that are not located in Clark, Floyd, Lake, or Porter counties from the following:
 - (A) The operation and control requirements of [326 IAC 8-3-5](#), [326 IAC 8-3-6](#), and [326 IAC 8-3-7](#) if the degreaser:
 - (i) is subject to [326 IAC 20-6-1](#) (National Emission Standards for Hazardous Air Pollutants (NESHAP) from halogenated solvent cleaning); or
 - (ii) uses only organic solvents that contain less than one percent (1%) VOCs by weight.
 - (B) The material requirements at [326 IAC 8-3-8](#) if the cold cleaning degreaser:
 - (i) is subject to [326 IAC 20-15-1](#) (NESHAP from aerospace manufacturing and rework facilities); or
 - (ii) uses aqueous cleaning solvents as defined in the draft rule language ([326 IAC 8-3-0.5](#)).

In combination with other efforts to reduce VOCs in Indiana and other states, the revisions to the organic solvent degreasers rule under consideration in Indiana will contribute to a regional control of VOCs that will assist many counties in reaching and maintaining attainment for the new 8-hour ozone standard while balancing the regulatory requirements across the state. Additionally, the proposed amendments to the material requirements for cold cleaning degreasers would update the rule to reflect that solvents meeting the proposed material requirements are already in extensive use throughout the state. Upon completion of the rulemaking, this rule will be submitted to the U.S. EPA for approval as a revision to the state implementation plan (SIP).

IC 13-14-9-4 Identification of Restrictions and Requirements Not Imposed under Federal Law

The following element of the draft rule imposes either a restriction or a requirement on persons to whom the draft rule applies that is "not imposed under federal law" (NIFL element).

The following information is provided with each NIFL element:

- (1) The environmental circumstance or hazard dictating the imposition of the NIFL element in order to protect human health and the environment in Indiana and examples in which federal law is inadequate to provide this protection for Indiana.
- (2) The estimated fiscal impact and expected benefits of the NIFL element, based on the extent to which the NIFL element exceeds the requirements of federal law.
- (3) The availability for public inspection of all materials relied on by IDEM in the development of the NIFL element including, if applicable, health criteria, analytical methods, treatment technology, economic impact data, environmental assessment data, analyses of methods to effectively implement the proposed rule, and other background data.

NIFL Element A: Expanding the material requirements for cold cleaning degreasers to cold cleaning degreasers statewide. The applicability provisions in [326 IAC 8-3-1](#) will require any person who sells, offers for sale, uses, or manufactures solvent for use in cold cleaning degreasers in Indiana to meet the material requirements of [326 IAC 8-3-8](#).

- (1) The application of certain VOC control measures to all counties in Indiana will provide a general benefit to ozone nonattainment and maintenance areas. This rule is part of a larger group of VOC control rules that have been agreed to by the LADCO states to address regional ozone and particulate matter nonattainment.
- (2) The fiscal impact of compliance statewide for the material requirement is not easily quantified due to the large number of degreasing operations across the state. LADCO estimated a cost of \$1,400 per ton of VOC reduced based on the South Coast Air Quality Management District's cost analysis for their solvent cleaning rule (Rule 1122). However, that estimate assumed that compliant solvents were not readily available to regulated sources. The major solvent suppliers in Indiana already distribute solvents statewide that meet the material requirements proposed in this rulemaking. Additionally, material substitution will generally result in lower compliance costs for individual sources than would be anticipated with the use of emission control devices.
- (3) LADCO evaluated potential reductions from various regulatory options that could be adopted on a multistate basis in the region. The information used for the evaluation is presented in a white paper on degreasing at:

http://www.ladco.org/Regional_Air_Quality.html

Potential Fiscal Impact

This rulemaking proposes to extend the applicability of the material requirements for cold cleaning degreasers at [326 IAC 8-3-8](#) to all counties in the state. A previous state rulemaking in 1998 that added the material requirements for cold cleaning degreasers at [326 IAC 8-3-8](#) for four counties estimated a low fiscal impact. That rulemaking action would have been more costly to suppliers because the required solvents were not

readily available in this state. However, since the 1998 rulemaking, compliant solvents for cold cleaning degreasers are currently being supplied statewide. IDEM surveyed the two largest solvent suppliers in Indiana and both already distribute compliant solvent to their customers statewide. No additional capital costs for equipment are anticipated.

Small Business Assistance Information

IDEM established a compliance and technical assistance (CTAP) program under [IC 13-28-3](#). The program provides assistance to small businesses and information regarding compliance with environmental regulations. In accordance with [IC 13-28-3](#) and [IC 13-28-5](#), there is a small business assistance program ombudsman to provide a point of contact for small businesses affected by environmental regulations. Information on the CTAP program, the monthly CTAP newsletter, and other resources available can be found at:

<http://www.in.gov/idem/4108.htm>

Small businesses affected by this rulemaking may contact the Small Business Regulatory Coordinator:

Alison Surface
IDEM Compliance and Technical Assistance Program
OPPTA - MC60-04
100 North Senate Avenue
W041
Indianapolis, IN 46204-2251
(317) 232-8172
ctap@idem.in.gov

The Small Business Assistance Program Ombudsman is:

Brad Baughn
IDEM Small Business Assistance Program Ombudsman
MC 50-01 - IGCN 1307
100 North Senate Avenue
Indianapolis, IN 46204-2251
(317) 234-3386
mtretter@idem.in.gov

Public Participation and Workgroup Information

No workgroup is planned for the rulemaking. If you feel that a workgroup or other informal discussion on the rule is appropriate, please contact Amy Smith, Rule and State Implementation Plan Development Section, Office of Air Quality at (317) 233-8628 or (800) 451-6021 (in Indiana).

SUMMARY/RESPONSE TO COMMENTS FROM THE FIRST COMMENT PERIOD

IDEM requested public comment from June 27, 2007, through July 27, 2007, on alternative ways to achieve the purpose of the rule and suggestions for the development of draft rule language. IDEM received comments from the following party by the comment period deadline:

Rolls-Royce (RR)

Following is a summary of the comments received and IDEM's responses thereto:

Comment: Rolls-Royce Corporation uses Isoproponal and Ardrex in solvent cleaning applications using cold cleaners. This solvent cleaning application is covered in the Aerospace NESHAP. The new proposed rule exempts electronic components cleaning operation but not aerospace components cleaning operations.

Based on the current Aerospace NESHAP requirements applicability to this operation, Rolls-Royce requests that Indiana Department of Environmental Management exempt this operation in the proposed rule [326 IAC 8-3](#).

Rolls-Royce's comments included draft language for [326 IAC 8-3-8](#):

"...except for solvents intended to be used to clean electronic components and components and equipment associated with Aerospace coating operations. Aerospace coating operations includes the cleaning of aerospace parts prior to coating and the cleaning of equipment associated with aerospace coating activities such as paint/epoxy guns."

Response: IDEM has reviewed Rolls-Royce's comment and will provide an exemption for sources subject to [326 IAC 20-15-1](#) (Aerospace Manufacturing and Rework Facilities) that incorporates by reference 40 CFR 63, Subpart GG (National Emission Standards for Aerospace Manufacturing and Rework Facilities). This exemption will be available to any other company also subject to the Aerospace NESHAP in the state, except for companies located in Clark, Floyd, Lake, and Porter counties.

SUMMARY/RESPONSE TO COMMENTS FROM CONTINUATION OF FIRST NOTICE OF COMMENT PERIOD

IDEM requested public comment from April 2, 2008, through May 2, 2008, on additional alternatives to achieve the purpose of the rule and suggestions for the development of draft rule language. IDEM received comments from the following party by the comment period deadline:

Improving Kids' Environment (IKE)

Following is a summary of the comments received and IDEM's responses thereto:

Comment: IKE supports IDEM's proposal to extend the existing material requirements for cold cleaning degreasers to the rest of the state. The first alternative is that degreasers subject to the federal NESHAP for Halogenated Solvent Degreasing would be exempt from the requirements of the provisions of Rule 8-3. The NESHAP, which Indiana adopted at [326 IAC 20-6-1](#), applies to the following solvents: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, and chloroform. Thus, it does not appear that the rule would apply to degreasers using many solvents that meet the definition of volatile organic compounds used by IDEM and the U.S. EPA. What is the basis for IDEM's determination that the NESHAP is more strict specifically with respect to ozone causing pollutants? (IKE)

Response: IKE is correct that the exemption does not apply to degreasers using many solvents that meet the definition of VOC used by IDEM and the U.S. EPA. Of the six solvents that are regulated by the NESHAP, only three are VOCs, and only one of those VOC solvents is commonly used (trichloroethylene). However, for degreasers subject to this rule that are using a solvent also subject to the Halogenated Solvent Cleaning NESHAP, the exemption will ease their compliance burden. The Halogenated Solvent Cleaning NESHAP (40 CFR 63, Subpart T) incorporated by reference at [326 IAC 20-6-1](#), has operation and control requirements that are at least as stringent as the operation and control requirements for organic solvent degreasing operations in [326 IAC 8-3](#). The exemption in the draft rule language will only exempt degreasers subject to the NESHAP from the operation and control requirements of sections 5 through 7 of [326 IAC 8-3](#). The exemption will not be applicable to organic solvent degreasing operations located in Clark, Floyd, Lake or Porter counties and will not be any less protective of ozone air quality than the current rule.

Comment: IDEM is considering exempting facilities that are subject to the NESHAP for Aerospace Manufacturing and Rework Facilities. The Notice does not explain the rationale for this alternative. What is the basis for IDEM's determination that the NESHAP will be equally protective of ozone air quality as the current rules? (IKE)

Response: During the First Notice of Comment Period, Rolls-Royce Corporation requested that an exemption be provided for solvents used in their degreasing operations regulated by the Aerospace Manufacturing and Rework Facilities NESHAP (40 CFR 63, Subpart GG). The exemption was requested because several necessary solvents used by Rolls-Royce for their operations do not meet the vapor pressure limits of [326 IAC 8-3-8](#).

In the existing rule, only sources in Clark, Floyd, Lake, and Porter counties are subject to the material requirements for cold cleaning degreasers. The proposed exemption will only exempt sources subject to [326 IAC 20-15-1](#) (Aerospace Manufacturing and Rework Facilities), from [326 IAC 8-3-8](#), the material requirements for cold cleaning degreasers. No organic solvent degreasing operations currently subject to the material requirements of [326 IAC 8-3-8](#) will be subject to this exemption. This exemption is not applicable to any degreasers located in Clark, Floyd, Lake, or Porter counties. The exemption will not be any less protective of ozone air quality than the current rule.

Comment: The third alternative proposes a de minimis exemption. Such an approach can be fine and, as the Notice states, encourages facilities to switch to water-based cleaners, but the rule should include a cap on the total amount of material used. (IKE)

Response: An important goal for IDEM is pollution prevention, and encouraging degreasing operations to switch from a 100% solvent degreasing operation to a water based degreasing operation furthers this goal. This exemption is not applicable to any degreasers located in Clark, Floyd, Lake, or Porter counties. IDEM believes that a cap on the total amount of exempt material used is not necessary because the amount of VOC emitted from a cold cleaner degreasing operation that would switch to an aqueous cleaning solvent would not be significant. IDEM is also expecting an additional decrease in VOC emissions by eliminating the grandfathering of existing degreasers. Overall, the proposed amendments to this rule will be stringent and more protective of ozone air quality than the current rule.

Comment: IKE agrees with the proposal to eliminate grandfathering. Most of the provisions in Article 8 have been in place for many years and represent standards and readily available equipment, materials, and operating practices. It is reasonable for all degreasers to comply with these requirements. (IKE)

Response: Eliminating grandfathering will ensure that all degreasers are subject to minimum control and operating requirements. The amendments to [326 IAC 8-3](#) will clarify the applicability of the rule for the regulated community, permit writers, and compliance and enforcement staff.

REQUEST FOR PUBLIC COMMENTS

This notice requests the submission of comments on the draft rule language, including suggestions for specific revisions to language to be contained in the draft rule. Mailed comments should be addressed to:

#07-352(APCB) VOC Degreasers
Amy Smith Mail Code 61-50
Rule and State Implementation Plan Development Section
Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue

Indianapolis, Indiana 46204

Hand delivered comments will be accepted by the receptionist on duty at the tenth floor reception desk, Office of Air Quality, 100 North Senate Avenue, Indianapolis, Indiana.

Comments may be submitted by facsimile at the IDEM fax number: (317) 233-5967, Monday through Friday, between 8:15 a.m. and 4:45 p.m. Please confirm the timely receipt of faxed comments by calling the Rule and State Implementation Plan Section at (317) 234-6530.

COMMENT PERIOD DEADLINE

Comments must be postmarked, faxed, or hand delivered by February 12, 2010.

Additional information regarding this action may be obtained from Amy Smith, Rule and State Implementation Plan Development Section, Office of Air Quality, (317) 233-8628 or (800) 451-6027 (in Indiana).

DRAFT RULE

SECTION 1. [326 IAC 8-3-0.5](#) IS ADDED TO READ AS FOLLOWS:

[326 IAC 8-3-0.5](#) Definitions

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#)

Affected: [IC 13-12-3-1](#)

Sec. 0.5. The following definitions apply throughout this rule:

(1) "Aqueous cleaning solvent" means a solvent that as used:

(A) is at least eighty percent (80%) water by weight of the solvent;

(B) has a flash point greater than ninety-three (93) degrees Celsius (two hundred (200) degrees Fahrenheit); and

(C) is miscible with water.

(2) "Electronic components" means all components of an electronic assembly, including, but not limited to, the following:

(A) Circuit board assemblies.

(B) Printed wire assemblies.

(C) Printed circuit boards.

(D) Soldered joints.

(E) Ground wires.

(F) Bus bars.

(G) Any other associated electronic component manufacturing equipment.

(Air Pollution Control Board; [326 IAC 8-3-0.5](#))

SECTION 2. [326 IAC 8-3-1](#) IS AMENDED TO READ AS FOLLOWS:

[326 IAC 8-3-1](#) Applicability

Authority: [IC 13-14-8](#); [IC 13-17](#)

Affected: [IC 13-17-3](#)

Sec. 1. (a) Sections ~~2~~ **5** through ~~4~~ **7** of this rule apply to the following **degreasers using organic solvents that contain one (1) or more VOCs**:

(1) Existing ~~facilities~~ **degreasers** as of January 1, 1980, ~~performing organic solvent degreasing operations~~ located in:

(A) Clark;

(B) Elkhart;

(C) Floyd;

(D) Lake;

(E) Marion;

(F) Porter; and

(G) St. Joseph;

counties and ~~which~~ **that** are located at sources ~~which~~ **that** have potential emissions of ninety and seven-tenths (90.7) megagrams (one hundred (100) tons) or greater per year of VOC.

(2) New ~~facilities~~ **degreasers** after January 1, 1980, ~~performing organic solvent degreasing operations~~ located anywhere in the state.

~~(b) Sections 5 through 7 of this rule apply to the following:~~

~~(1) The following facilities performing organic solvent degreasing operations~~

(3) Existing degreasers as of July 1, 1990, located in Clark, Elkhart, Floyd, Lake, Marion, Porter, and St. Joseph counties existing as of July 1, 1990: **the following types:**

(A) Cold cleaner degreasers without remote solvent reservoirs.

(B) Open top vapor degreasers with an air to solvent interface of one (1) square meter (ten and eight-tenths (10.8) square feet) or greater.

(C) Conveyorized degreasers with an air to solvent interface of two (2) square meters (twenty-one and six-tenths (21.6) square feet) or greater.

These facilities **degreasers** shall attain compliance with this rule no later than July 1, 1991.

~~(2) Any (4) New facility construction of which commences~~ **degreasers, constructed** after July 1, 1990, of the types described in subdivision ~~(4) (3)~~ located in ~~any county~~: **anywhere in the state.**

(5) Any degreaser located in the state as of January 1, 2011.

~~(e) (b) Unless exempted by subsection (c), section 8 of this rule applies to any person who sells, offers for sale, uses, or manufactures solvent for use in cold cleaning degreasers in: the following counties:~~

~~(1) Clark, Floyd, Lake, and Porter counties prior to January 1, 2011; and~~

~~(2) Floyd.~~

~~(3) Lake.~~

~~(4) Porter.~~

(2) all counties in the state on or after January 1, 2011.

(c) The following exemptions apply to this rule:

(1) Sections 5 through 7 of this rule do not apply to the following organic solvent degreasing operations:

(A) Degreasers subject to [326 IAC 20-6-1](#), which incorporates by reference 40 CFR 63, Subpart T*, National Emissions Standards for Hazardous Air Pollutants for Halogenated Solvent Cleaning, and that are not located in Clark, Floyd, Lake, or Porter counties.

(B) Degreasers that use organic solvents that:

(i) contain less than one percent (1%) of VOCs by weight; and

(ii) are not located in Clark, Floyd, Lake, or Porter counties.

(2) Section 8 of this rule does not apply to the following:

(A) Organic solvents used in degreasers to clean electronic components.

(B) Organic solvents used in degreasers that are subject to the requirements of [326 IAC 20-15-1](#), which incorporates by reference 40 CFR 63, Subpart GG*, National Emission Standards for Aerospace Manufacturing and Rework Facilities, and that are not located in Clark, Floyd, Lake, or Porter counties.

(C) Aqueous cleaning solvents used in degreasers that are not located in Clark, Floyd, Lake, or Porter counties.

*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.

(Air Pollution Control Board; [326 IAC 8-3-1](#); filed Mar 10, 1988, 1:20 p.m.: 11 IR 2537; filed Apr 18, 1990, 4:55 p.m.: 13 IR 1679; filed Apr 27, 1999, 9:06 a.m.: 22 IR 2854; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)

SECTION 3. [326 IAC 8-3-5](#) IS AMENDED TO READ AS FOLLOWS:

[326 IAC 8-3-5](#) Cold cleaner degreaser operation and control

Authority: [IC 13-14-8](#); [IC 13-17](#)

Affected: [IC 13-17-3](#)

Sec. 5. (a) The owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:

- (1) Equip the degreaser with a cover. ~~The cover must be designed so that it can be easily operated with one (1) hand if:~~
 - ~~(A) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));~~
 - ~~(B) the solvent is agitated; or~~
 - ~~(C) the solvent is heated.~~
- (2) Equip the degreaser with a facility **device** for draining cleaned articles. ~~If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility~~ **device** may be external for applications where an internal type cannot fit into the cleaning system.
- (3) Provide a permanent, conspicuous label ~~which~~ **that** lists the operating requirements outlined in subsection (b).
- ~~(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.~~
- (4) Cold cleaner degreasers without remote solvent reservoirs that are subject to section 1(a)(3)(A) or 1(a)(4) of this rule shall ensure that the following additional control equipment requirements are met:**
 - ~~(5) (A) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths (48.9) degrees Celsius (48.9°C) (one hundred twenty (120) degrees Fahrenheit: (420°F)):~~
 - ~~(A) (i) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.~~
 - ~~(B) (ii) A water cover when solvent used is insoluble in, and heavier than, water.~~
 - (iii) A refrigerated chiller.**
 - (iv) Carbon adsorption.**
 - ~~(C) (v) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption; or better control as those outlined in items (i) through (iv). Such systems shall be submitted to the U.S. EPA as a SIP revision.~~
 - (B) Ensure that the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is:**
 - (i) agitated; or**
 - (ii) heated.**

(b) The owner or operator of a cold cleaning facility **degreaser** shall ensure that the following operating requirements are met:

- (1) Close the cover whenever articles are not being handled in the degreaser.
- (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
- (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.
- (4) Solvent spray, if used:**
 - (A) must be a solid, fluid stream; and**
 - (B) shall be applied at a pressure that does not cause excessive splashing.**

(Air Pollution Control Board; [326 IAC 8-3-5](#); filed Apr 18, 1990, 4:55 p.m.: 13 IR 1679; filed May 6, 1991, 4:45 p.m.: 14 IR 1717; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)

SECTION 4. [326 IAC 8-3-6](#) IS AMENDED TO READ AS FOLLOWS:

[326 IAC 8-3-6](#) Open top vapor degreaser operation and control requirements

Authority: [IC 13-14-8](#); [IC 13-17](#)

Affected: [IC 13-17-3](#)

Sec. 6. (a) The owner or operator of an open top vapor degreaser shall ensure that the following control

equipment requirements are met:

- (1) Equip the degreaser with a cover that can be opened and closed easily without disturbing the vapor zone.
- ~~(2) Equip the degreaser with the following switches:~~
 - ~~(A) A condenser flow switch and thermostat which shuts off sump heat if condenser coolant stops circulating or becomes too warm.~~
 - ~~(B) A spray safety switch which shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).~~
- ~~(3)~~ **(2)** Equip the degreaser with a permanent, conspicuous label ~~which~~ **that** lists the operating requirements outlined in subsection (b).
- (3) Open top vapor degreasers with an air to solvent interface of one (1) square meter (ten and eight-tenths (10.8) square feet) or greater that are subject to section 1(a)(3)(B) or 1(a)(4) of this rule shall ensure that the following additional control equipment requirements are met:**
 - (A) Equip the degreaser with the following switches:**
 - (i) A condenser flow switch and thermostat that shuts off sump heat if condenser coolant stops circulating or becomes too warm.**
 - (ii) A spray safety switch that shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).**
 - ~~(4)~~ **(B)** Equip the degreaser with one (1) of the following control devices:
 - ~~(A)~~ **(i)** A freeboard ratio of seventy-five hundredths (0.75) or greater and a powered cover if the degreaser opening is greater than one (1) square meter (ten and eight-tenths (10.8) square feet).
 - ~~(B)~~ **(ii)** A refrigerated chiller.
 - ~~(C)~~ **(iii)** An enclosed design in which the cover opens only when the article is actually entering or exiting the degreaser.
 - ~~(D)~~ **(iv)** A carbon adsorption system with ventilation ~~which, that,~~ with the cover open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot) of air to vapor interface area and an average of less than twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle.
 - ~~(E)~~ **(v)** Other systems of demonstrated equivalent or better control as those outlined in ~~clauses (A) items (i) through (D) (iv).~~ Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) The owner or operator of an open top vapor degreaser shall ensure that the following operating requirements are met:

- (1) Keep the cover closed at all times except when processing workloads through the degreaser.
- (2) Minimize solvent carryout emissions by:
 - (A) racking articles to allow complete drainage;
 - (B) moving articles in and out of the degreaser at less than three and three-tenths (3.3) meters per minute (eleven (11) feet per minute);
 - (C) degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;
 - (D) tipping out any pools of solvent on the cleaned articles before removal; and
 - (E) allowing articles to dry within the degreaser for at least fifteen (15) seconds or until visually dry.
- (3) Prohibit the entrance into the degreaser of porous or absorbent materials such as, but not limited to:
 - (A)** cloth;
 - (B)** leather;
 - (C)** wood; or
 - (D)** rope.
- (4) Prohibit occupation of more than one-half (1/2) of the degreaser's open top area with the workload.
- (5) Prohibit the loading of the degreaser ~~to the point where so that the vapor level would drop~~ **drops** more than ~~ten (10) centimeters (four (4) inches)~~ **fifty percent (50%) of the vapor depth** when the workload is removed.
- (6) Prohibit solvent spraying above the vapor level.
- (7) Repair solvent leaks immediately or shut down the degreaser if leaks cannot be repaired immediately.
- (8) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.
- ~~(9) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser open area unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration requirements.~~
- ~~(10)~~ **(9)** Prohibit the use of workplace fans near the degreaser opening.
- ~~(11)~~ **(10)** Prohibit visually detectable water in the solvent exiting the water separator.
- (11) Open top vapor degreasers with an air to solvent interface of one (1) square meter (ten and eight-tenths (10.8) square feet) or greater that are subject to section 1(a)(3)(B) or 1(a)(4) of this rule**

shall ensure that the following additional operating requirements are met:

- (A) Prohibit the loading of the degreaser to the point where the vapor level would drop more than ten (10) centimeters (four (4) inches) when the workload is removed.
- (B) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser open area unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration requirements.

(Air Pollution Control Board; [326 IAC 8-3-6](#); filed Apr 18, 1990, 4:55 p.m.: 13 IR 1680; filed May 6, 1991, 4:45 p.m.: 14 IR 1717; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)

SECTION 5. [326 IAC 8-3-7](#) IS AMENDED TO READ AS FOLLOWS:

[326 IAC 8-3-7](#) Conveyorized degreaser operation and control

Authority: [IC 13-14-8](#); [IC 13-17](#)

Affected: [IC 13-17-3](#)

Sec. 7. (a) The owner or operator of a conveyorized degreaser shall ensure that the following control equipment requirements are met:

(1) Equip the degreaser with a permanent, conspicuous label that lists the operating requirements outlined in subsection (b).

(2) Conveyorized degreasers with an air to solvent interface of two (2) square meters (twenty-one and six-tenths (21.6) square feet) or greater that are subject to section 1(a)(3)(C) or 1(a)(4) of this rule shall ensure that the following additional control equipment requirements are met:

~~(4)~~ **(A)** Equip the degreaser's entrances and exits with downtime covers ~~which that~~ are closed when the degreaser is not operating.

~~(2)~~ **(B)** Equip the degreaser with the following switches:

~~(A)~~ **(i)** A condenser flow switch and thermostat ~~which that~~ shuts off sump heat if condenser coolant stops circulating or becomes too warm.

~~(B)~~ **(ii)** A spray safety switch ~~which that~~ shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).

~~(C)~~ **(iii)** A vapor level control thermostat ~~which that~~ shuts off sump heat when vapor level rises more than ten (10) centimeters (four (4) inches).

(3) (C) Equip the degreaser with entrances and exits ~~which that~~ silhouette workloads in such a manner that the average clearance between the articles and the degreaser opening is either less than:

(i) ten (10) centimeters (four (4) inches); or ~~less than~~

(ii) ten percent (10%) of the width of the opening.

~~(4)~~ **(D)** Equip the degreaser with a drying tunnel, rotating or tumbling basket, or other equipment ~~which that~~ prevents cleaned articles from carrying out solvent liquid or vapor.

~~(5) Equip the degreaser with a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).~~

~~(6)~~ **(E)** Equip the degreaser with one (1) of the following control devices:

~~(A)~~ **(i)** A refrigerated chiller.

~~(B)~~ **(ii)** A carbon adsorption system with ventilation ~~which, that~~, with the downtime covers open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot) of air to solvent interface area, and an average of less than twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle.

~~(C)~~ **(iii)** Other systems of demonstrated equivalent or better control as those outlined in ~~clause (A) or (B).~~ **item (i) or (ii).** Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) The owner or operator of a conveyorized degreaser shall ensure that the following operating requirements are met:

(1) Minimize solvent carryout emissions by the following:

(A) Racking articles to allow complete drainage.

(B) Maintaining the vertical conveyor speed at less than three and three-tenths (3.3) meters per minute (eleven (11) feet per minute).

(2) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

- (3) Repair solvent leaks immediately or shut down the degreaser if leaks cannot be repaired immediately.
- (4) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser opening unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration requirements.
- (5) (4) Prohibit the use of workplace fans near the degreaser opening.
- (6) (5) Prohibit visually detectable water in the solvent exiting the water separator.
- (6) Conveyorized degreasers with an air to solvent interface of two (2) square meters (twenty-one and six-tenths (21.6) square feet) or greater that are subject to section 1(a)(3)(C) or 1(a)(4) of this rule shall ensure that the following additional operating requirements are met:**
 - (A) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser opening unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration requirements.**
 - (7) (B) Cover entrances and exits at all times except when processing workloads through the degreaser.**

(Air Pollution Control Board; [326 IAC 8-3-7](#); filed Apr 18, 1990, 4:55 p.m.: 13 IR 1681; filed May 6, 1991, 4:45 p.m.: 14 IR 1718; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)

SECTION 6. [326 IAC 8-3-8](#) IS AMENDED TO READ AS FOLLOWS:

[326 IAC 8-3-8](#) Material requirements for cold cleaning degreasers

Authority: [IC 13-14-8](#); [IC 13-17](#)

Affected: [IC 13-17-3](#)

Sec. 8. (a) This section applies to the users, providers, and manufacturers of solvents **Material requirements** for use in cold cleaning degreasers in Clark, Floyd, Lake, and Porter Counties, except for solvents intended to be used to clean electronic components. **specified in subsection (b) apply as follows:**

- (1) On and after May 1, 2001, in Clark, Floyd, Lake, and Porter counties.**
- (2) On and after January 1, 2011, in all counties.**

~~(b) As used in this section, "electronic components" means all components of an electronic assembly, including, but not limited to, the following:~~

- ~~(1) Circuit board assemblies.~~
- ~~(2) Printed wire assemblies.~~
- ~~(3) Printed circuit boards.~~
- ~~(4) Soldered joints.~~
- ~~(5) Ground wires.~~
- ~~(6) Bus bars.~~
- ~~(7) Any other associated electronic component manufacturing equipment.~~

~~(c) Material requirements are phased in as follows:~~

- ~~(1) On and after November 1, 1999, no person shall do the following:~~
 - ~~(A) Cause or allow the sale of solvents for use in cold cleaning degreasing operations with a vapor pressure that exceeds two (2) millimeters of mercury (thirty-eight thousandths (0.038) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit) in an amount greater than five (5) gallons during any seven (7) consecutive days to an individual or business.~~
 - ~~(B) Operate a cold cleaning degreaser with a solvent vapor pressure that exceeds two (2) millimeters of mercury (thirty-eight thousandths (0.038) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).~~
- ~~(2) On and after May 1, 2001, no person shall do the following:~~

(b) Material requirements applicable to cold cleaning degreasers are as follows:

- (A) (1) No person shall** cause or allow the sale of solvents for use in cold cleaning degreasing operations with a vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit) in an amount greater than five (5) gallons during any seven (7) consecutive days to an individual or business.
- (B) (2) No person shall** operate a cold cleaning degreaser with a solvent vapor pressure that exceeds one (1)

millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

~~(d) On and after November 1, 1999, the following~~ **(c)** Record keeping requirements shall be followed: **are as follows:**

(1) All persons subject to the requirements of subsection ~~(c)(1)(A) and (c)(2)(A)~~ **(b)(1)** shall maintain all of the following records for each sale:

(A) The name and address of the solvent purchaser.

(B) The date of sale.

(C) The type of solvent **sold**.

(D) The volume of each unit of solvent sold.

(E) The total volume of the solvent **sold**.

(F) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(2) All persons subject to the requirements of subsection ~~(c)(1)(B) and (c)(2)(B)~~ **(b)(2)** shall maintain each of the following records for each purchase:

(A) The name and address of the solvent supplier.

(B) The date of purchase.

(C) The type of solvent **purchased**.

(D) The volume of each unit of solvent **purchased**.

(E) The total volume of the solvent **purchased**.

(F) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

~~(e)~~ **(d)** All records required by subsection ~~(d)~~ **(c)** shall be:

(1) retained on-site for the most recent three (3) year period; and ~~shall be~~

(2) reasonably accessible for **inspection by the department for** an additional two (2) year period.

(Air Pollution Control Board; [326 IAC 8-3-8](#); filed Apr 27, 1999, 9:06 a.m.: 22 IR 2854; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)

SECTION 7. THE FOLLOWING ARE REPEALED: [326 IAC 8-3-2](#); [326 IAC 8-3-3](#); [326 IAC 8-3-4](#).

[Notice of Public Hearing](#)

Posted: 01/13/2010 by Legislative Services Agency

An [html](#) version of this document.